

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

*Risk  
defined  
extent of  
plume*

Submit 1 copy to  
appropriate  
District Office  
and 1 copy to  
the Santa Fe Office

(Revised 3/9/94)

PIT REMEDIATION AND CLOSURE REPORT

Operator: Unocal Corporation Telephone: \_\_\_\_\_

Address: 30-039-06949

Facility Or: Rincon Unit #121, Meter 72211

Well Name \_\_\_\_\_

Location: Unit or Qtr/Qtr Sec O Sec 23 T 27 R 6 County Rio Arriba

Pit Type: Separator \_\_\_\_\_ Dehydrator \_\_\_\_\_ Other Drip

Land Type: BLM X, State \_\_\_\_\_, Fee \_\_\_\_\_ Other \_\_\_\_\_

Pit Location: Pit dimensions: length 17', width 16', depth 2'

(Attach diagram)

Reference: wellhead X, other \_\_\_\_\_

Footage from reference: 86'

Direction from reference: 89 Degrees X East North \_\_\_\_\_  
of  
\_\_\_\_\_ West South \_\_\_\_\_

Depth To Ground Water	Less than 50 feet	(20 points)
(Vertical distance from	50 feet to 99 feet	(10 points)
contaminants to seasonal	Greater than 100 feet	( 0 points) <u>0</u>
high water elevation of		
ground water.)		

Wellhead Protection Area:	Yes (20 points)
(Less than 200 feet from a private	No ( 0 points) <u>20</u>
domestic water source, or; less than	
1000 feet from all other water sources.)	

Distance To Surface Water:	Less than 200 feet	(20 points)
(Horizontal distance to perennial	200 feet to 1000 feet	(10 points)
lakes, ponds, rivers, streams, creeks,	Greater than 1000 feet	( 0 points) <u>0</u>
irrigation canals and ditches.)		

RANKING SCORE (TOTAL POINTS): 20

Date Remediation Started: 12/13/94 Date completed: 12/13/94

Remediation Method: Excavation \_\_\_\_\_ Approx. cubic yards \_\_\_\_\_

(Check all appropriate sections.)

Landfarmed \_\_\_\_\_ Insitu Bioremediation \_\_\_\_\_

Other Backfill pit without excavation

Remediation Location: Onsite N/A Offsite N/A  
(i.e. landfarmed onsite,  
name and location of  
offsite facility)

General Description of Remedial Action: Pit had a fence around it. Dug a test hole to 12', sampled, closed pit.

Ground Water Encountered: No X Yes \_\_\_\_\_ Depth \_\_\_\_\_

Final Pit:  
Closure Sampling:  
(if multiple samples,  
attach sample results  
and diagram of sample  
locations and depths)

Sample location Four walls and center of pit composite

Sample depth 12'

Sample Date 12/13/94 Sample time 13:30

Sample Results

Benzene(ppm) Not reported

Total BTEX(ppm) Not reported

Field headspace(ppm) 746

TPH 5800

Ground Water Sample: Yes \_\_\_\_\_ No X (If yes, attach sample results)

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Date 1/8/03

Signature

Scott T. Pope

Printed Name  
and Title

Scott T. Pope  
Senior Env. Scientist



## PIT CLOSURE REQUEST

Rincon Unit #121  
Meter/Line ID 72211

### SITE DETAILS

Legals - Twn: 27N

Rng: 6W

Sec: 23

Unit: O

NMOCD Hazard Ranking: 20

Land Type: BLM

Operator: Unocal Corporation

Pit Closure Date: 12/13/94



### RATIONALE FOR RISK-BASED CLOSURE

The pit noted above was assessed and ranked according to the criteria in the New Mexico Oil Conservation Division's (NMOCD) Unlined Surface Impoundment Closure Guidelines.

A test pit was excavated to 12 feet (ft) below ground surface (bgs) where a soil sample was collected for field headspace analysis and laboratory analysis for TPH. Groundwater was not encountered in the test pit. Headspace analysis indicated an organic vapor content of 746 ppm; laboratory analysis indicated a TPH concentration of 5,800 mg/kg. The headspace analysis and TPH measurement exceeded recommended remediation levels for the Hazard Ranking Score of 20.

No soil was disposed of offsite. The pit was backfilled with site soil, topped with clean soil from the surrounding berms, and graded in a manner to direct surface runoff away from the pit area. There is a windmill less than 1,000 feet from the pit.

A Phase II boring was completed to 26 ft bgs. No groundwater was encountered in the soil boring. One laboratory sample was collected at 25-26 ft bgs. Headspace analysis indicated an organic vapor content of 27 ppm; laboratory analysis indicated a benzene concentration of <0.5 mg/kg, a total BTEX concentration of <3 mg/kg, and a TPH concentration of <20 mg/kg. The benzene, BTEX and TPH concentrations were below recommended remediation levels for the Hazard Ranking Score.

No Phase III activities were conducted.

El Paso Field Services requests closure of the above mentioned production pit location for the following reasons:

- The primary source, discharge to the pit, has been removed for over seven years.
- The test pit was backfilled and the former pit area graded to direct surface runoff away from the former pit.
- The clean soil from the berms placed on top of the excavation would limit the potential for direct contact with hazardous constituents by livestock or the public; i.e., current direct contact exposure pathways are unlikely to be completed.
- Groundwater was not encountered in the soil boring at 26 ft bgs; local geologic features indicate the depth to groundwater is greater than 100 ft bgs.
- Benzene, total BTEX, and TPH concentrations in the soil sample collected at the base of the Phase II soil boring at 25 ft bgs were non-detect, indicating that no significant downward constituent migration is occurring.



## **PIT CLOSURE REQUEST**

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- Residual hydrocarbons in the soil will likely degrade by natural attenuation with minimal risk to human health and the environment.

### **ATTACHMENTS**

Field Pit Assessment Form  
Revised Field Pit Assessment Form  
Field Pit Remediation/Closure Form  
Phase II Soil Boring Log  
Laboratory Analytical Results

# FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 72211 Location: PINCON UNIT #121  
 Operator #: \_\_\_\_\_ Operator Name: UNOCAL P/L District: BLANCO  
 Coordinates: Letter: 0 Section 23 Township: 27 Range: 6  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Pit Type: Dehydrator \_\_\_\_\_ Location Drip: X Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
 Site Assessment Date: 11-28-94 Area: 03 Run: 21

SITE ASSESSMENT

NMOCD Zone:  
 (From NMOCD  
 Maps)

Inside  
 Outside

Land Type:

BLM ☒ (1)  
 State ☐ (2)  
 Fee ☐ (3)  
 Indian \_\_\_\_\_

☐ (1)  
☒ (2)

Depth to Groundwater

Less Than 50 Feet (20 points) ☐ (1)  
 50 Ft to 99 Ft (10 points) ☐ (2)  
 Greater Than 100 Ft (0 points) ☒ (3)

Wellhead Protection Area :

Is it less than 1000 ft from wells, springs, or other sources of fresh water extraction? , or ; Is it less than 200 ft from a private domestic water source? ☒ (1) YES, (20 points) ☐ (2) NO (0 points)

WINDMILL - 300

Horizontal Distance to Surface Water Body

Less Than 200 Ft (20 points) ☐ (1)  
 200 Ft to 1000 Ft (10 points) ☐ (2)  
 Greater Than 1000 Ft (0 points) ☒ (3)

Name of Surface Water Body \_\_\_\_\_

(Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)

Distance to Nearest Ephemeral Stream ☐ (1) < 100' (Navajo Pits Only)  
☐ (2) > 100'

TOTAL HAZARD RANKING SCORE: 20 POINTS

REMARKS

Remarks : REDLINE & TOPO SHOW LOCATION OUTSIDE V.I.Z. ONE PIT ON LOCATION.  
PIT IS NOT LINED.



## FIELD SERVICES LABORATORY

### ANALYTICAL REPORT

#### PIT CLOSURE PROJECT - Soil Samples Outside the GWV Zone

#### SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KP360	946527
MTR CODE   SITE NAME:	72211	N/A
SAMPLE DATE   TIME (Hrs):	12-13-94	1330
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	12-15-94	12-15-94
DATE OF BTEX EXT.   ANAL.:		
TYPE   DESCRIPTION:	VG	Gray/Brown fine sand

REMARKS:

#### RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
TPH (418.1)	5800 5799 <sup>KOC</sup> <sub>12/15/94</sub>	MG/KG			0.53	28
HEADSPACE PID	746	PPM				
PERCENT SOLIDS	88.5	%				

-- TPH is by EPA Method 418.1 --

Narrative:

DF = Dilution Factor Used

Approved By: \_\_\_\_\_

Date: \_\_\_\_\_

12/27/94

# FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 72211 Location: RINCON GRAY # 121  
 Coordinates: Letter: 0 Section 23 Township: 27 Range: 6  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Date Started : 12-13-94 Run: 03 21

FIELD OBSERVATIONS

Sample Number(s): KP 360  
 Sample Depth: 12' Feet  
 Final PID Reading 746 PID Reading Depth 12' Feet  
 Yes No  
 Groundwater Encountered ☐ ☒ Approximate Depth \_\_\_\_\_ Feet

CLOSURE

Remediation Method :  
 Excavation ☐ Approx. Cubic Yards 0  
 Onsite Bioremediation ☐  
 Backfill Pit Without Excavation ☒  
 Soil Disposition:  
 Envirotech ☐ Tierra ☐  
 Other Facility ☐ Name: \_\_\_\_\_  
 Pit Closure Date: 12-13-94 Pit Closed By: B.E.P.

REMARKS

Remarks : Pit Had A Fence Around it dug A Test hole  
To 12' sample Closed Pit.

Signature of Specialist: Kelly Padilla



## Page \_\_\_\_\_ of \_\_\_\_\_.

White - Testing Laboratory    Canav - EPNG Lab    Pink - Field Sampler



# RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.

Monroe Road  
 Arlington, New Mexico 87401  
 (505) 326-2262 FAX (505) 326-2388

Borehole # BH-1  
 Well # NA  
 Page 1 of 1

Project Number 19643 Phase 1001.77  
 Project Name EPFS PITS >10  
 Project Location RINCON UNIT #121 72211

Elevation \_\_\_\_\_  
 Borehole Location LTR: D S: 23 T: 27 R: 6  
 GWL Depth NA  
 Drilled By K. PADILLA  
 Well Logged By H. BRADBURY  
 Date Started 8/20/98  
 Date Completed 8/20/98

Drilling Method 4 1/4 ID HSA  
 Air Monitoring Method PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: PPM			Drilling Conditions & Blow Counts
							BZ	BH	S/HS	
0										BZ=Breathing Zone BH=Borehole S/HS=Sample/Headspace
5										
10				EXCAVATION sample collected at 12'			0	1239		
15	1	15-16'	6"	14 BR silty SAND, fine sand DENSE, dry	SM		1	4391	$\frac{1248}{2105}$	1417 hrs
20	2	20-21'	6"	14 BR SILT. DENSE, dry TR, SANDSTONE	SM		1	923	$\frac{50}{94}$	1430 hrs
25	3	25-26'	4"	14 BR SILT. LOOSE, dry	SM		0	15	$\frac{4}{27}$	1456 hrs
30				TOB 26'						
35										
40										

Comments:

HAB 7 25-26' SENT TO LAB FOR TPH BTEX. GW NOT ENCOUNTERED.  
 BH GROUTED TO SURFACE.

Geologist Signature

*Holly Bradbury*



# PHASE II DRILLING

## CHAIN OF CUSTODY RECORD

10-1-98 Anal.  
10-1-98 Chion.

10-1-98 App.

Page \_\_\_\_\_ of \_\_\_\_\_

[illegible]

White - Testing Laboratory    Canary - EPNG Lab    Pink - Field Sampler

**FIELD SERVICES LABORATORY  
ANALYTICAL REPORT  
PIT CLOSURE PROJECT**

**SAMPLE IDENTIFICATION**

	Field ID	Lab ID
SAMPLE NUMBER:	HAB7	980578
MTR CODE   SITE NAME:	72211	Rincon Unit #121
SAMPLE DATE   TIME (Hrs):	8/20/98	1449
PROJECT:	Phase II Drilling	
DATE OF TPH EXT.   ANAL.:	8/28/98	8/28/98
DATE OF BTEX EXT.   ANAL.:	8/24/98	8/26/98
TYPE   DESCRIPTION:	VG	SOIL

Field Remarks: 25-26'

**RESULTS**

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	<0.5	MG/KG				
TOLUENE	<0.5	MG/KG				
ETHYL BENZENE	<0.5	MG/KG				
TOTAL XYLENES	<1.5	MG/KG				
TOTAL BTEX	<3	MG/KG				
TPH (MOD.8015)	<20	MG/KG				
HEADSPACE PID	27	PPM				
PERCENT SOLIDS	95.1	%				

-- TPH is by EPA Method 418.1 and BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 108.3 % for this sample All QA/QC was acceptable.

Narrative:

DF = Dilution Factor Used

Approved By: John Larch

Date: 9/14/98

## GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8015 MODIFIED (DIRECT INJECT)  
 CLIENT : EL PASO FIELD SERVICES  
 PROJECT # : (none)  
 PROJECT NAME : PHASE II DRILLING

PINNACLE I.D.: 808070

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	980574	NON-AQ	8/17/98	8/28/98	8/28/98	1
02	980575	NON-AQ	8/17/98	8/28/98	8/28/98	1
03	980576	NON-AQ	8/18/98	8/28/98	8/28/98	1

PARAMETER	DET. LIMIT	UNITS	01	02	03
FUEL HYDROCARBONS, C6-C10	10	MG/KG	< 10	< 10	< 10
FUEL HYDROCARBONS, C10-C22	5.0	MG/KG	< 5.0	< 5.0	< 5.0
FUEL HYDROCARBONS, C22-C36	5.0	MG/KG	< 5.0	< 5.0	< 5.0

CALCULATED SUM:

SURROGATE:

O-TERPHENYL (%)  
 SURROGATE LIMITS

100      151      137

( 66 - 151 )

CHEMIST NOTES:

N/A

## GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8015 MODIFIED (DIRECT INJECT)  
 CLIENT : EL PASO FIELD SERVICES PINNACLE I.D.: 808070  
 PROJECT # : (none)  
 PROJECT NAME : PHASE II DRILLING

SAMPLE		MATRIX	DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.		SAMPLED	EXTRACTED	ANALYZED	FACTOR
04	980577	NON-AQ	8/20/98	8/28/98	8/28/98	1
05	980578	NON-AQ	8/20/98	8/28/98	8/28/98	1
PARAMETER		DET. LIMIT	UNITS	04	05	
FUEL HYDROCARBONS, C6-C10		10	MG/KG	< 10	10	
FUEL HYDROCARBONS, C10-C22		5.0	MG/KG	< 5.0	< 5.0	
FUEL HYDROCARBONS, C22-C36		5.0	MG/KG	< 5.0	< 5.0	
CALCULATED SUM:						

ROGATE:  
 CATERPHENYL (%) 92 145  
 SURROGATE LIMITS ( 66 - 151 )

CHEMIST NOTES:  
 N/A

PROJECT MANAGER: John Lambdin		COMPANY: El Paso Field Services		ADDRESS: 770 W. Navajo		PHONE: Farmington NM 87401		FAX: (505) 599-2144		BILL TO: (505) 599-2261		COMPANY: Above		ADDRESS:	
Petroleum Hydrocarbons (418.1) TRPH		X		X		X		X		X		X		X	
(MOD.8015) Diesel/Direct Inject		X		X		X		X		X		X		X	
(M8015) Gas/Purge & Trap															
8021 (BTEX)/8015 (Gasoline)															
8021 (BTEX) □ MTBE □ TMB □ PCE															
8021 (TCL)															
8021 (EDX)															
8021 (HALO)															
8021 (CUST)															
504.1 EDB □ /DBCP □															
8260 (TCL) Volatile Organics															
8260 (Full) Volatile Organics															
8260 (CUST) Volatile Organics															
8260 (Landfill) Volatile Organics															
Pesticides /PCB (608/8081)															
Herbicides (615/8151)															
Base/Neutral/Acid Compounds GC/MS (625/8270)															
Polynuclear Aromatics (610/8310)															
General Chemistry:															
Priority Pollutant Metals (13)															
Target Analyte List Metals (23)															
RCRA Metals (8)															
RCRA Metals by TCLP (Method 1311)															
Metals:															

PROJ. NO.:	(RUSH) □ 24hr □ 48hr □ 72hr □ 1 WEEK	(NORMAL) <input checked="" type="checkbox"/>
PROJ. NAME: Phase II Drilling	CERTIFICATION REQUIRED: □ NM □ SDWA □ OTHER	
P.O. NO.:	METHANOL PRESERVATION □	
SHIPPED VIA: Fed Ex	COMMENTS: FIXED FEE □	
Please send new COC's when Available.		
Signature: <u>Marlon Hopper</u> 1306 Printed Name: <u>Marlon Hopper</u> Date: <u>8/24/98</u> Company: <u>EPFS</u>		
Signature: _____ Printed Name: _____ Date: _____ Company: _____		
Signature: _____ Printed Name: _____ Date: _____ Company: _____		

# BTEX SOIL SAMPLE WORKSHEET

File	:	980578	Date Printed	:	8/27/98
Soil Mass (g)	:	5.14	Multiplier (L/g)	:	0.00097
Extraction vol. (mL)	:	10	CAL FACTOR (Analytical):		200
Shot Volume (uL)	:	50	CAL FACTOR (Report):		0.19455

		DILUTION FACTOR:	1	Det. Limit
Benzene (ug/L)	:	<0.5	Benzene (mg/Kg): #VALUE!	0.486
Toluene (ug/L)	:	<0.5	Toluene (mg/Kg): #VALUE!	0.486
Ethylbenzene (ug/L)	:	<0.5	Ethylbenzene (mg/Kg): #VALUE!	0.486
p & m-xylene (ug/L)	:	<1.0	p & m-xylene (mg/Kg): #VALUE!	0.973
o-xylene (ug/L)	:	<0.5	o-xylene (mg/Kg): #VALUE!	0.486
			Total xylenes (mg/Kg): #VALUE!	1.459
			Total BTEX (mg/Kg): #VALUE!	